

REMARKS

These remarks are responsive to the Office Action, dated October 6, 2005. The Applicant also filed a petition for three months extension of time to respond to the Office Action. Claims 32, 33, and 38-71 are currently pending. Claims 32, 38, 39, 40, 41, 60, 61, 67, and 71 are independent. Claims 32-33, 38-41, 60-61, 67, 68, 70, and 71 are amended.

In the October 6, 2005 Office Action, the Examiner objected to claim 60 because of an informality. The Applicant amended claim 60 to accommodate Examiner's objection. Hence, this objection is now moot.

In the October 6, 2005 Office Action, the Examiner objected to claim 68 because a limitation of "documented associated between the first name and the second name" is missing a noun. The Applicant amended claim 68 to accommodate Examiner's objection. Hence, this objection is now moot.

In the October 6, 2005 Office Action, the Examiner rejected claims 32, 33, 38, 41-60, and 67-71 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These rejections are now moot.

In the October 6, 2005 Office Action, the Examiner rejected claim 71 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. This rejection is now moot.

In the October 6, 2005 Office Action, the Examiner rejected claims 32, 33, 38, 39, 61, and 67-70 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. These rejections are either respectfully traversed or moot.

In the October 6, 2005 Office Action, the Examiner rejected claims 32, 33, and 38-71 under 35 U.S.C. 103(a) as being unpatentable over Cotter et al., "The National Biological Information Infrastructure: coming of age", Online Information Review, Vol. 24, No. 6, pp. 429, 438, 2000 ("Cotter") in view of Pullan, M.R., et al., "The Prometheus Taxonomic Model: a practical approach to representing multiple classifications", Taxon 49: 55-75, 2000 ("Pullan"). The Applicants respectfully traverse this rejection.

Applicants gratefully acknowledge Examiner's withdrawal of the restriction requirement.

35 U.S.C. 101

In the October 6, 2005 Office Action, the Examiner rejected claim 32 under 35 U.S.C. 101 as being directed to non-statutory subject matter.

In the October 6, 2005 Office Action, the Examiner stated that claim 32 is, *inter alia*, not statutory because it merely recites a number of computing steps without producing any tangible result and/or being limited to a practical application within the technological arts.

Applicants amended claims 32, 38, 41, 60, 67, 70, and 71 to conform with statutory requirements of MPEP 2106. Thus, the rejections of claims 32, 38, 41, 60, 67, 70, and 71 are now moot. The Examiner is respectfully requested to reconsider and withdraw his rejections of claims 32, 38, 41, 60, 67, 70, and 71.

Claims 33 and 68-70 are dependent on respective independent claims 32 and 67. As such claims 33 and 68-70 are patentable for at least the reasons stated above with respect to claims 32 and 67. As such the rejections of claims 33 and 68-70 are moot for at least the reasons stated above. The Examiner is respectfully requested to reconsider and withdraw his rejections of claims 33 and 68-70.

35 U.S.C. 112

In the October 6, 2005 Office Action, the Examiner rejected claim 71 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

While Applicants disagree with the Examiner, (see, e.g., pg. 12, line 18 to pg. 14, line 10), Applicants have amended claim 71 and deleted the objected limitation of “as a proxy for one or more information management applications” in an effort to expedite prosecution. Hence, the rejection is now moot. The Examiner is respectfully requested to reconsider and withdraw his rejection of claim 71.

In the October 6, 2005 Office Action, the Examiner rejected claims 32, 33, 38, 39, 61, and 67-70 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

With regard to claim 32, the Applicants amended the claim to provide proper antecedent basis for all claim terms in the claim. Hence, this rejection is now moot. The Examiner is respectfully requested to reconsider and withdraw his rejection of claim 32.

With regard to claims 32, 38, 39, and 61, the Applicants amended these claims to include the more precise term “corresponds” and deleted the objected limitation of “sufficiently similar”. Hence, this rejection is now moot. The Examiner is respectfully requested to reconsider and withdraw his rejections of claims 32, 38, 39, and 61.

With regard to claim 33, the Applicants have amended this claim to correct the antecedents. Hence, this rejection is now moot. The Examiner is respectfully requested to reconsider and withdraw his rejection of claim 33.

With regard to claim 61, the Applicants amended this claim and deleted limitations of “a first part of a distributed database” and “a second part of the distributed database” and replaced

them with “a first portion” and “a second portion”. This language is broad enough to cover both situations discussed by the Examiner (i.e., are they the same/different) and there is no requirement that Applicants limit this claim to just one of these situations. Hence, this rejection is now moot. The Examiner is respectfully requested to reconsider and withdraw his rejection of claim 61.

With regard to claim 67, the Applicants amended this claim to clarify the objected limitation of “associating the first name with a name identifier”. Currently, claim 67 recites a method for managing taxonomic information, comprising: identifying a name that specifies an organism; associating the name with an identifier; and associating another name with the identifier based on objectively derived criteria. It is respectfully submitted that the name need not be the same as an identifier. In an embodiment of the present invention, the identifier can be compared to a taxon identifier. (See, specification, page 18, line 18, to page 19, line 8). Hence, this rejection is traversed.

Further, the Applicants amended claim 67 to provide proper antecedent basis for all elements in the claim. Thus, this rejection is also moot. The Examiner is respectfully requested to reconsider and withdraw his rejections of claim 67.

35 U.S.C. 103(a)

In the October 6, 2005 Office Action, the Examiner rejected claim 32 under 35 U.S.C. 103(a) as being unpatentable over Cotter in view of Pullan. This rejection is respectfully traversed.

Claim 32 recites a method for managing taxonomic information, comprising: identifying a name that specifies an organism; determining if the name corresponds to a name entry in a names table; identifying a taxonomic identifier of the name entry; determining if the taxonomic

identifier is included in a classification entry in a classification table allowing taxa to be organized according to more than one classification; identifying another taxonomic identifier of the classification entry; and based on the another taxonomic identifier, identifying another name.

In the October 6, 2005 Office Action, the Examiner stated that Cotter discloses all elements of claim 32 except that it does not “disclose allowing taxa to be organized according to more than one classification.” (See, Office Action, Page 6). Instead, according to the Examiner, “Pullan teaches allowing taxa to be organized according to more than one classification (Pullan, page 10-11)”. The Applicants respectfully submit that neither Cotter nor Pullan nor their combination disclose all elements of claim 32 and that their improper combination does not teach or suggest the present invention, contrary to the Examiner’s assertion. Specifically, Cotter, Pullan and their combination fail to disclose, teach or suggest, *inter alia*, “identifying a taxonomic identifier of the name entry; determining if the taxonomic identifier is included in a classification entry in a classification table allowing taxa to be organized according to more than one classification; identifying another taxonomic identifier of the classification entry”, as recited in claim 32.

Cotter discloses an Integrated Taxonomic Information System (“ITIS”) that provides a standardized reference for the scientific names of the flora and fauna of North America and surrounding oceans. (Cotter, page 432, col. 2). ITIS provides a common vocabulary of species names and links to biological data. Cotter simultaneously searches for a name and synonyms of the name. (Cotter, page 432, col. 2). Cotter’s ITIS depends upon a system of data stewards, i.e., people with particular taxonomic expertise, who are responsible for scientific quality of data. (Cotter, page 433, col. 1). Upon completion of a search, Cotter’s ITIS produces one preferred scientific name and multiple synonyms of the scientific name. Cotter implements a controlled

vocabulary to use in describing resources in metadata records. (Cotter, page 434, col. 2). A researcher, using Cotter, creates metadata records by entering a known term and then Cotter checks the term against the controlled vocabulary. (Cotter, page 435, col. 1).

However, Cotter fails to disclose, teach or suggest, *inter alia*, identifying a taxonomic identifier of the name entry, as recited in claim 32. Instead, Cotter only describes a controlled vocabulary that contains a plurality of terms and synonyms of those terms, where the synonyms are produced as a result of a search. (Cotter, pages 434-435). Cotter allows its users to create a metadata record based on their search. This is in contrast to the present invention that identifies a taxonomic identifier of the name entry, as recited in claim 32. Further, Cotter does not disclose, *inter alia*, determining if the taxonomic identifier is included in a classification entry in a classification table, contrary to the Examiner's assertion. (Office Action, page 6). In contrast, Cotter's controlled vocabulary generates synonyms and other authorized terms based on an entered search term. The searcher, using Cotter controlled vocabulary, browses the vocabulary to select the most specific authorized terms for retrieval of datasets and documents or combines the terms to construct a wider-ranging free-text search. (Cotter, page 435, col. 1-2). However, Cotter does not describe a classification table having classification entries containing taxonomic identifiers, as recited in claim 32.

Cotter also does not disclose, teach or suggest, *inter alia*, identifying another taxonomic identifier of the classification entry, as recited in claim 32. Cotter discloses a controlled vocabulary containing scientific terms and synonyms of the terms, but does not disclose use or identification of taxonomic identifiers. Thus, Cotter does not disclose, teach or suggest all elements of claim 32.

In the October 6, 2005 Office Action, the Examiner stated that Pullan “teaches allowing taxa to be organized according to more than one classification”. (Office Action, page 6). Pullan discloses a circumscribed taxon (“CT”) element that contains a representation of taxonomic opinion, i.e., circumscription of the taxon. The CT element includes a rank of the taxon (i.e., whether certain types of links can be made to or from a CT element and which rules should be applied when determining the correct name), circumscription details (i.e., a CT delimiter), ascribed name, author and date. (Pullan, Figure 3, Pages 9-10). Pullan’s classification is represented by the relationships between CTs, i.e., the fact that a taxon is a member of another taxon of higher rank is indicated by a link between the appropriate CTs. Pullan’s classifications are represented by a separate hierarchy of CTs. (Pullan, page 10).

This is in contrast to the present invention, as represented by claim 32. Contrary to the Examiner’s suggestion, Pullan does not disclose, teach or suggest, *inter alia*, determining if the taxonomic identifier is included in a classification entry in a classification table allowing taxa to be organized according to more than one classification, as recited in claim 32. Instead, Pullan organizes taxons according to a hierarchy based on a rank and, then, links them together. This is in contrast to claim 32 which recites organizing taxa according to more than one classification in a classification table.

Further, Pullan does not disclose, teach or suggest a taxonomic identifier, as recited in claim 32. Pullan discloses a CT element, which represents a set of individual elements, annotated with names, that define a taxon. (Pullan, Page 10). The CT element is different from the taxonomic identifier. In contrast, the taxonomic identifier identifies an entry in a names table, where the name specifies an organism, and then, based on the taxonomic identifier, a second

name can be identified, where the second name also identifies an organism, according to claim 32.

Additionally, Pullan discloses that classifications are represented by relationships between CT elements and that these relationships are based on rank assignments of the CT elements. (Pullan, Pages 10-11). Further, Pullan's classifications are based on genus-species CT element groups (i.e., a genus rank CT element may have multiple species rank CT elements that are subordinate to it). (Pullan, Page 10). In contrast, the present invention organizes taxa according to more than one classification, according to claim 32. This is different than organizing CT elements based on rank.

Thus, neither Cotter nor Pullan disclose, teach or suggest all elements of claim 32, and claim 32 should be allowed.

Further, there is no motivation or suggestion to combine Cotter and Pullan to produce the claimed invention. Specifically, Cotter discloses a controlled vocabulary that includes scientific names of species and links to biological data. The vocabulary can be searched to produce multiple synonyms of scientific names. Pullan discloses a genus-species ranking system that classifies relationships between specific CT elements. In contrast, Cotter does not disclose any way to rank scientific names in its vocabulary. Pullan does not disclose a controlled vocabulary that contains synonyms of names. Hence, Cotter and Pullan relate to different technological arts and cannot be properly combined.

Even if one were to combine the Cotter and Pullan, the present invention, as represented by claim 32, is not realized. Specifically, the combination of Cotter and Pullan results in a system that includes a controlled vocabulary of scientific terms and synonyms of the scientific terms, which can be organized in a hierarchy based on a rank. However, the combination of

Cotter and Pullan fails to disclose, teach or suggest, *inter alia*, identifying a taxonomic identifier of the name entry; determining if the taxonomic identifier is included in a classification entry in a classification table allowing taxa to be organized according to more than one classification; identifying another taxonomic identifier of the classification entry, as recited in claim 32.

Thus, the combination of Cotter and Pullan does not render claim 32 obvious. As such, this rejection is respectfully traversed. The Examiner is requested to reconsider and withdraw his rejection of claim 32.

Independent claims 38, 39, 40, 41, 60, 61, 67, and 71 are patentable over the combination of Cotter and Pullan for at least the reasons stated above with respect to claim 32. Thus, the rejections of claims 38, 39, 40, 41, 60, 61, 67, and 71 are respectfully traversed. The Examiner is requested to reconsider and withdraw his rejections of claims 38, 39, 40, 41, 60, 61, 67, and 71.

Claims 33, 42-59, 62-66, and 68-70 are dependent on respective independent claims 32, 38, 39, 40, 41, 60, 61, 67, and 71. As such, claims 33, 42-59, 62-66, and 68-70 are patentable over the combination of Cotter and Pullan for at least the reasons stated above with respect to claim 32. Thus, the rejections of claims 33, 42-59, 62-66, and 68-70 are respectfully traversed. The Examiner is requested to reconsider and withdraw his rejections of claims 33, 42-59, 62-66, and 68-70.

No new matter has been added.

The claims currently presented are proper and definite. Allowance is accordingly in order and respectfully requested. However, should the Examiner deem that further clarification of the record is in order, we invite a telephone call to the Applicants' undersigned attorney to expedite further processing of the application to allowance.

Dated: April 6, 2006

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Boris A. Matvenko', is written over a horizontal line.

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